REMARKS

A new abstract containing 150 words or less is submitted herewith.

Several new claims have been submitted and find basis in the original claims and in the specification at pages 5, 6, 7 and 11.

The claims were rejected under 35 U.S.C. 103 over Mitsao in view of Kocal. This rejection is respectfully traversed.

The present invention involves a method of producing a polyalkylbiphenyls with high efficiency in a continuous flow system which includes recycling of a fraction of a reaction mixture. If the recycled fraction contains a biphenyl having a relatively low melting point, up to 70°C, and the biphenyl exists in a high concentration, it can become solidified during the recirculation. That problem is solved by maintaining the ratio of biphenyl to monoalkylbiphenyl at 0.1 or more and less than the soluablility of biphenyl to monoalkylbiphenyl at a circulation temperate.

The Office Action acknowledges on page 5 that Mitsao does not teach or suggest recycling a fraction of the biphenyl and monoalkylbiphenyl. The Office Action asserts, however, that it would be obvious to modify Mitsao using the claimed composition and mass percent using a recycled stream in order to reduce the heavy components and increase the desired components. No basis for this assertion is set

forth nor is any apparent. All rejections require a factual basis and there is none here. Accordingly, the Office Action has merely deemed what is not taught or suggested in the prior art to be obvious and that is not permitted.

Even if Mitsao had a recycle step, and it does not, there is a problem with solidification if the biphenyl exists in a high concentration. The reference does not recognize this problem nor does it provide any solution to it. Further, 4,4'-dialkybiphenyl has a high melting point and there is a fear that it will precipitate as a crystal when cooled. Dialkylbiphenyls having an ortho-position substituent have low boiling point and the inclusion of either 4,4-dialkylbiphenyl or ortho-substituted dialkylbiphenyls is undesirable when using the product as a pressure sensitive paper solid. Mitsao also does not teach or suggest these problems or how to solve them.

Mitsao has an object of preparing 4-alkyl products with selectivity. It does not disclose a method for reducing the content of 4,4'-dialkybiphenyls in the product, much less disclose how to reduce the content by the feature specified in claims 2 and 3. The Examiner will note that Mitsao Example 6-12 in the reference show proportions of 4,4'-disubstituted alkylbiphenyl in disubstituted dialkybiphenyls to be in the range of 79-88 percent.

The Kocal patent has been cited only to show a fixed bed reactor. As such, it is not asserted to, nor in fact does it, cure any of the basic deficiencies in Mitsao. The combination cannot, therefore, render the claimed invention obvious.

In light of all of the foregoing considerations, it is respectfully submitted that this application is in condition to be allowed and the early issuance of a Notice of Allowance is respectfully solicited.

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Respectfully submitted,

By 

Edward A. Meilman
Registration No.: 24,735
DICKSTEIN SHAPIRO MORIN &
OSHINSKY LP
1177 Avenue of the Americas
41st Floor
New York, New York 10036-2714
(212) 277-6500
Attorney for Applicant